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ABSTRACT

Two-year college placement directors and career planning counselors in Michigan were requested to rate the occupational demand situation for 1986 graduates based on information obtained from graduate follow-up studies, employer requests, number of job listings, and discussions with recruiting employers. Responses were received from 25 of the 34 colleges contacted. Study findings included the following: (1) of the 174 two-year certificated programs that were rated, 47% were considered to have "good," "very good," or "excellent" job markets; (2) the highest demand for two-year certificated graduates was in secretarial services, retail management, health services, and industrial technology; (3) of the 332 associate degree programs evaluated, 58% received job market ratings of "good," "very good," or "excellent," and 23% received ratings of "fair" or "poor"; while the graduates from the remaining programs were expected to continue their education at a four-year college; (4) associate degree programs with "good" to "excellent" job markets were in the areas of business and management, business office administration, marketing and distribution, communications technologies, education, engineering, allied health, vocational home economics, protective services, mechanics and repairs, and precision production; and (5) comments from several placement directors indicated that local job markets were so poor that graduates were relocating to obtain employment. Job market ratings for individual programs and by region are provided. (AYC)

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ESTIMATED DEMAND FOR 1986 GRADUATES OF MICHIGAN TWO-YEAR COLLEGES

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JC 870 161

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Michigan State University
East Lansing, Michigan 48824-1113

Foreward

Graduating students need information on current job market conditions in order to plan their job campaigns. As part of the research program of the Michigan College and University Employment Research Institute, data were obtained on the current demand for graduates of Michigan four- and two-year institutions. This report provides information on the 1986 employment market for two-year certificated and associate degree recipients.

This study reveals that the job market is slightly stronger for associate degree graduates than certificated graduates. For both degrees, there are good to excellent job markets for many majors, particularly those in business, allied health, electronics and engineering technologies. There appear to be some differences in job opportunities within various parts of Michigan, although no one area has a superior market relative to other area in the state.

We hope you find this report useful in your work. Should you have any questions or need additional copies, please contact the Institute.

John D. Shingleton
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Lansing Community College
Mid Michigan Community College
Montcalm Community College
Muskegon Business College
North Central Michigan College
North Western Michigan College
Southwestern Michigan College
Schoolcraft College
Suomi College
Washtenaw Community College
West Shore Community College

GENERAL STATEMENT

Placement directors and career planning counselors of Michigan 2-year colleges were requested to rate the demand situation for 1986 graduates. Responses were received from 25 institutions of the 34 contacted. Ratings provided by these placement officials were based on information obtained from follow-up studies of recent graduates, interviewing statistics on employer requests by major, number of job listings and discussions with employers who were recruiting college students.

The following rating scale was used:

Excellent Job Market-	Many more job opportunities than graduates available.
Very Good Job Market-	Some more job opportunities than graduates available.
Good Job Market-	About as many jobs as graduates available.
Fair Job Market-	A few more graduates that jobs available.
Poor Job Market-	Many more graduates that jobs available.
CB-	Majority of graduates continuing their education (college bound) at 4-year institutions.

Of the 174 two-year certificated programs that were rated, 47% (82) were rated with "good," "very good," or "excellent" job markets. The other 92 programs were rated "fair" or "poor." The highest demand for two-year certificate graduates was in secretarial services, retail management, health services including nursing, respiratory therapy, medical technology, food services management, dietetic management, and industrial technology. The latter group covered a number of program areas such as electronics and electrical technology, plastics manufacturing, tool design, robotic applications technology, computer services, aircraft maintenance, and industrial, machinery and numerical technology.

There were 332 associate degree programs evaluated in this study. Ratings indicated that the job market for 191 (58%) programs was "good", "very good", or "excellent", and for 77 (23%), the job market was "fair" or "poor". Graduates of the remaining 64 (19%) programs are expected to continue their education at four-year institutions.

Graduates of some programs will enter the job market while other graduates will continue at another educational institution.

This situation has been identified in the accompanying appendix by a job market rating - / - cb designation. A wide variety of associate degree programs have "good" to "excellent" job markets. These can be found in the following general academic major catagories: business and management, business office administration, marketing and distribution, communications technologies, education, engineering, allied health, vocational home economics (particularly food service and culinary technologies), protective services, mechanics and repairs, and precision production.

Comments from severel placement directors indicated that local job markets were so poor that graduates were relocating to obtain employment. The concern over local job market conditions was examined on a regional basis by dividing the state into three areas: Detroit and Flint Metropolitan Areas, Down-State which included all counties south of the line extending across the southern boundary of Oceania County through Bay County, and Up-State which included all counties north of this line. Two-year institutions were assigned to the appropriate region.

Ratings were assigned numerical values from 1 = excellent to 5 = poor. Program ratings were then collapsed into major CIP catagories. Mean ratings were obtained for each catagory as reported in Table 1. In this analysis, no area had a better job market than other areas for all academic programs. Each region had a market which reflected the need for certain types of graduates, resulting in variations across the state. Many of the differences across programs were simply a matter of degree between "good" and "very good".

The observations for several program catagories were large enough to make statistical comparisons. Three two-year certification programs had statistically significant differences in ratings. In business and management programs, the mean rating for Down-State institutions was 4.31 which was significantly higher than Up-State institutions (3.38). Up-State ratings for business and office programs were significantly higher (3.33) than both of the other areas (2.20 and 2.72 for Detroit and Down-State, respectively). Finally, there was a significant difference in the ratings for precision production programs between Detroit (2.00) and Down-State (3.79) institutions. This difference, however, may be a result of the small sample size for Detroit rather than a better job market.

Significant rating differences appeared in four associate degree programs. In business and management, there was a significant difference in the mean rating between Detroit (2.34) and Up-State (2.81). The rating for business and office was significantly lower (better market conditions) by Up-State institutions (2.18) than for Down-State institutions (3.11). For engineering and related technologies, there was a significant difference between Down-State institutions (2.98) and both Detroit (2.13) and Up-State (2.00) institutions. The final significant rating difference was between Detroit and Down-State institutions for allied health programs with Detroit having a better job market than the other regions (means of 2.17, 3.06, and 3.00 for Detroit, Down-State, and Up-State, respectively).

Table 1. Mean Ratings for Major Program Areas in Different Regions of Michigan
(n = number of observations)

CIP CATEGORY	CERTIFICATE								ASSOCIATE DEGREE							
	TOTAL		DETROIT		DOWN		UP-STATE		TOTAL		DETROIT		DOWN		UP-STATE	
	N	MEAN	N	MEAN	N	MEAN	N	MEAN	N	MEAN	N	MEAN	N	MEAN	N	MEAN
1	1	4.00	-		1	4.00	-		1	3.00	-		-		1	3.00
2	-		-		-		-		1	1.00	1	1.00	-		-	
4	2	4.50	-		2	4.50	-		7	4.00	2	4.50	5	3.80	-	
5	1	5.00	1	5.00	-		-		-		-		-		-	
6*	31	3.77	2	3.50	13	4.31 [1]	16	3.38 [1]	92	3.07	24	3.04	43	3.09	25	3.04
7*	78	2.94	10	2.20 [2]	32	2.72 [2]	36	3.33 [2]	195	2.56	62	2.34 [4]	66	2.53	67	2.81 [4]
8*	18	3.17	2	2.00	6	3.17	10	3.4	39	2.85	10	3.10	18	3.11 [5]	11	2.18 [5]
9	1	5.00	-		1	5.00	-		4	3.75	1	5.00	2	4.00	1	2.00
10	13	4.15	2	3.50	8	4.25	3	4.33	16	3.94	4	3.75	9	4.22	3	3.33
11	11	3.00	-		1	3.00	10	3	36	2.56	13	2.62	8	2.75	15	2.40
12	1	4.00	-		-		1	4	4	3.25	2	4.00	-		2	2.50
13	2	3.50	-		1	3.00	1	4	5	2.20	-		1	2.00	4	2.25
14	1	4.00	1	4.00	-		-		6	2.00	3	1.67	2	3.00	1	1.00
15*	28	3.11	3	2.00	13	3.31	12	3.17	119	2.42	40	2.13 [6]	46	2.98 [6]	33	2.00 [6]
17*	17	3.00	5	2.00	6	4.00	6	2.83	61	2.79	18	2.17 [7]	31	3.06 [7]	12	3.00
18	13	3.00	3	2.67	5	4.00	5	2.2	26	2.08	9	2.44	8	2.25	9	1.56
20	14	3.64	2	3.50	3	5.00	9	3.22	27	2.81	10	2.70	7	3.71	10	2.30
22	2	5.00	-		1	5.00	1	5	9	3.00	3	3.00	4	3.75	2	1.50
24	-		-		-		-		2	3.50	-		1	4.00	1	3.00
25	-		-		-		-		1	5.00	-		1	5.00	-	
26	2	4.50	1	5.00	-		1	4	2	2.50	1	1.00	-		1	4.00
27	1	4.00	1	4.00	-		-		-		-		-		-	
30	1	4.00	1	4.00	-		-		-		-		-		-	
31	-		-		-		-		3	3.67	1	3.00	-		2	4.00
35	-		-		-		-		1	4.00	-		-		1	4.00
36	1	4.00	-		-		1	4	-		-		-		-	
38	-		-		-		-		1	4.00	1	4.00	-		-	
39	-		-		-		-		1	4.00	1	4.00	-		-	
40	4	3.75	3	4.67	1	1.00	-		3	1.67	-		2	1.50	1	2.00
41-42	-		-		-		-		1	3.00	-		-		1	3.00
43	11	3.91	1	4.00	2	4.00	8	3.88	27	3.00	8	3.63	7	3.43	12	2.33
44	4	4.50	-		3	4.67	1	4	9	3.78	1	3.00	5	4.40	3	3.00
45	-		-		-		-		2	3.50	-		-		2	3.50
46	4	3.50	-		1	4.00	3	3.33	9	3.11	2	3.50	3	2.67	4	3.25
47	37	3.14	3	2.33	10	3.10	24	3.25	57	2.32	7	1.86	21	2.76	29	2.10
48	29	3.31	4	2.00 [3]	14	3.79 [3]	11	3.18	68	2.59	13	2.23	29	2.93	26	2.38
49	1	5.00	-		1	5.00	-		5	2.80	-		4	3.25	1	1.00
50	8	4.38	-		2	4.50	6	4.33	20	4.15	6	4.33	4	4.50	10	3.90

* Significant contrasts between regions.

[1] $F = 5.26$ ($p < .01$) [2] $F = 7.38$ ($p < .001$) [3] $F = 4.74$ ($p < .02$) [4] $F = 3.52$ ($p < .03$)
[5] $F = 3.55$ ($p < .04$) [6] $F = 10.60$ ($p < .0001$) [7] $F = 3.56$ ($p < .03$)

Appendix A

Estimated Demand for 1986 2-Year Graduates

CIP Number	Academic Majors	Certificate n	Certificate Rating	Associate Degree n	Associate Degree Rating
Agriculture Business and Agricultural Production					
1.0102	Agricultural Business	1	fair	1	good
1.0601	Horticulture			1	cb
Agricultural Sciences					
2.0501	Crop & Soil Sc			1	excellent
Renewable Natural Resources					
3.0101	Environmental Science			1	cb
3.0101	Natural Resources			2	cb
3.0501	Forestry			1	cb
Architecture and Environmental Design					
4.0201	Architecture and Design			1	good
4.0501	Interior Design	1	poor	7	fair/cb
4.2601	Landscape Arch Technology	1	fair	1	fair
Area and Ethnic Studies					
5.0201	Black History	1	poor		
Business and Management					
6.0101	Business Technology			2	fair
6.0201	Accounting	5	fair	21	good/cb
6.0301	Banking Management			3	good/cb
6.0301	Banking Administration and Management	1	good	7	good/cb
6.0301	Business Administration/Banking	1	fair	3	good/cb
6.0301	Banking and Finance and Credit			3	good/cb
6.0401	Business Administration/Management	5	fair	16	good/cb
6.0401	Super. and Administrative Mgmt			1	cb
6.0401	Management Development-Business Mgt			3	fair/cb
6.0401	Management and Supervisor	2	good	4	good/cb

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
6.0401	Management and Marketing	3	fair	12	fair/cb
6.0499	Management Development-Retail Management	1	very good	3	very good
6.0701	Restaurant and Lodging Management	1	fair	2	fair
6.0701	Hospitality Management	2	fair	2	good
6.0701	Hotel/Motel Management	2	fair	4	good
6.0704	Food and Beverage Management	1	good	2	very good
6.0704	Fast Food/Family Dining Management			1	very good
6.0705	Transportation Technology	1	fair		
6.0705	Trans. & Traffic Management			1	very good
6.1399	Office Services Management			1	good
6.1401	Marketing Middle Management	1	poor	3	fair/cb
6.1401	Marketing and Applied Management			4	good/cb
6.1401	Retail Mid-Management			3	good/cb
6.1401	Marketing Management	1	good	4	good/cb
6.1501	Personnel/Labor Relations			1	poor
6.1704	Assessment Administration			1	poor
6.1801	Small Business Management	3	fair	8	good/cb
6.2000	Industrial Supervision and Management	1	poor	1	poor
Business and Office					
7.0102	Accounting Technician	1	good	6	fair
7.0102	Accounting/Data Processing	2	fair	11	good/cb
7.0103	Account Clerk Typist	2	fair	3	fair
7.0301	Data Processing Business	5	good	11	very good
7.0301	Small Business Computing Systems	1	good	4	very good/cb
7.0302	Business Computer Programmer	4	fair	13	good
7.0302	Computer Oper-Prog Maint	3	good	5	good
7.0302	Small Business Sys. Programmer	1	very good	2	very good/cb
7.0399	Computer Operations Management	2	fair	3	good
7.0399	Data Processing Small Computer Systems	1	good	3	good
7.0399	Microcomputer Systems	1	good	4	very good/cb
7.0401	Clerical Assistant	4	poor	6	good
7.0401	Production Operations Management	1	fair	1	good
7.0401	Administrative Assistant	2	fair	6	good
7.0401	Business Office Assistant	2	good	2	very good
7.0401	Office Administration			4	very good
7.0401	Management Development-Office Adminst			1	good
7.0401	Admins/Word Processing Secretary	3	very good	16	very good
7.0401	Dental Office Manager			1	very good
7.0602	Conference and Court Reporting			3	good
7.0603	Secretarial Administrative/Executive	4	good	12	very good
7.0603	Executive Office Assistant			4	very good

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
7.0604	Secretarial Legal	2	good	15	very good
7.0605	Secretarial Medical	1	fair	9	good
7.0606	Secretarial Science	9	very good	12	very good
7.0606	Secretarial Technician	1	good	1	very good
7.0607	Secretarial Stenographic	4	good	3	good
7.0607	Stenographic and Clerical	3	good	4	good
7.0607	Stenographer	3	good	5	good
7.0608	Word Processing Specialist	6	very good	11	very good
7.0699	Data Processing Secretarial	4	fair	5	good
7.0702	Clerk Typist	7	good	8	good
Marketing and Distribution					
8.0102	Fashion-Clothing Curriculum			1	good
8.0102	Clothing Fashion Merchandising	1	fair	5	fair
8.0102	Management Development-Retail Fashion			1	fair
8.0102	Fashion Merchandising	1	fair	3	fair
8.0401	Finance, Credit and Banking	1	good	4	very good/cb
8.0705	Marketing and Retailing	2	good	5	good/cb
8.0705	Mid-Management Retail	1	very good	4	very good/cb
8.0705	Retail Management	2	very good	5	very good/cb
8.0706	Sales	4	good	2	very good
8.0706	Sales and Marketing	2	good	4	good/cb
8.0706	Mid-Management Sales			2	good/cb
8.0799	Marketing and Merchandising	2	fair	5	good/cb
8.0799	Purchasing			1	cb
8.0807	Computer Sales Specialist	1	fair	1	very good
8.1104	Travel and Tourism Management	1	poor	4	fair
8.1203	Automotive Dealership Management			1	fair
Communications					
9.0201	Advertising Design			2	fair
9.0401	Journalism	1	poor	7	fair/cb
9.0401	Mass Communications			2	cb
9.0501	Public Relations			1	cb
Communications Technologies					
10.0101	Audiovisual Technology	1	poor	1	fair
10.0103	Photography Technology	5	good	4	very good
10.0103	Graphic & Commercial Art-Photography			1	poor

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
10.0103	Audiovisual Technology-Photo	1	poor	1	fair
10.0103	Photographic Technician-Marketing			1	good
10.0104	Broadcast Communications	1	poor	2	poor
10.0104	Communication Arts/TV Field Production	1	fair	1	fair
10.0104	Broadcasting/Radio & TV	1	poor	4	fair/cb
10.0199	Media Technology	1	poor	1	fair
	Computer and Information Sciences				
11.0101	Small Computer Applications Technology	2	good	2	good
11.0201	Data Processing Technology	1	good	3	good
11.0201	Electronics Data Processing	1	very good	1	excellent
11.0301	Data Processing Microcomputers	2	fair	5	good
11.0301	Computer Science/Data Processing	2	fair	9	good/cb
11.0301	Data Processing Information Systems	1	good	3	good
11.0401	Office Information Systems			2	very good
11.0501	Data Processing Systems Analysis			1	good
11.9999	Computer Information Sys/Accounting	1	good	2	very good
11.9999	Computer Information Sys-Programming	1	good	8	good
11.9999	Computer Information Sys-Small Compu			2	very good
	Consumer, Personal, and Miscellaneous Services				
12.0301	Mortuary Science			2	very good/cb
12.0403	Cosmetology Management	1	fair	2	fair
	Education				
13.0101	Education			6	excellent/cb
13.1001	Special Education			3	cb
13.1202	Elementary Education			7	very good/cb
13.1202	Elementary/Special Education			4	good/cb
13.1302	Art-Education			3	cb
13.1302	Secondary Education Art			4	cb
13.1303	Secondary Education Business			4	cb
13.1303	Office Education	1	good	1	very good
13.1303	Business Education	1	fair	3	good/cb
13.1305	Secondary Education English			3	cb
13.1305	Secondary Education Speech			4	cb
13.1306	Secondary Education Foreign Language			3	cb
13.1309	Secondary Education Industry			2	cb

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
13.1311	Secondary Education Mathematics			4	cb
13.1312	Secondary Education Music			4	cb
13.1313	Secondary Education Chemistry			4	cb
13.1313	Secondary Education Physics			3	cb
13.1313	Secondary Education Biology			4	cb
13.1314	Secondary Education Phys Ed			4	cb
13.1314	Physical Education			4	cb
13.1399	Secondary Education Journalism			3	cb
13.1399	Speech Theater Education			3	cb
Engineering					
14.0101	Engineering	1	fair	5	excellent/cb
14.0401	Architectural Engineering			2	good/cb
14.0701	Chemical Engineer			3	very good/cb
14.1701	Industrial Engineering			1	cb
14.1901	Mechanical Engineering Tech			2	very good
Engineering and Related Technologies					
15.0199	Architectural Technology	1	good		
15.0199	Arch. Bldg. Const.-Draw Tech			2	good
15.0202	Drafting/CAD-CAM			11	very good
15.0202	Drafting Detailer	2	good	4	good
15.0202	Computer-Aided Design and Tech			5	fair
15.0202	Drafting Technology	4	good	12	very good
15.0203	Surveying Technology	1	poor	1	poor
15.0299	Concrete Technology			2	very good
15.0303	Electronic Control Systems Technician			3	good
15.0303	Digital Electronic Technology			5	very good
15.0303	Computer Aided Design	3	good	6	very good
15.0303	Electronic Engineering Technology	1	very good	7	very good
15.0401	Biomedical Equipment Technology			2	good
15.0403	Electro/Mechanical Technician			2	good
15.0403	Electrical Mechanical Repair			1	excellent
15.0404	Robot Applications Technology-Automation	1	very good	4	fair
15.0404	Robotics and Flexible Automation			2	very good
15.0404	Fluid Power Technology	1	good	3	very good
15.0404	Industrial Controls Technology			1	cb
15.0501	Climate Control Systems Technology			1	good
15.0501	Air Conditioning Refrig & Heating Technology	3	good	7	good
15.0503	Energy Technology			2	very good

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
15.0599	Environmental Control Technology			1	good
15.0601	Industrial Chemical Technology			1	excellent
15.0603	Industrial Materials Technology			2	fair
15.0604	Manufacturing Engineering Tech			2	good
15.0604	Automated Manufacturing Technology			2	excellent
15.0604	Manufacturing and Production Planning			1	fair
15.0607	Plastics Manufacturing Technology	1	excellent	3	very good/cb
15.0610	Industrial Welder	2	poor	5	fair
15.0701	Occupational Health and Safety			1	fair
15.0702	Quality Control Tech/Supr			1	excellent
15.0702	Quality Control & Reliability			1	excellent
15.0801	Avionics	1	fair	1	fair
15.0803	Automotive Technology/Engineering			1	excellent
15.0805	Mechanical Design Tech	1	fair	3	very good
15.0805	Machine Tool Technology	2	fair	4	very good
15.0899	Tool Design Technology	1	very good	2	excellent
15.0903	Petroleum Technology			1	very good
15.9999	Numerical Control Programmer			3	very good
15.9999	Engineering Technology	1	fair	3	very good/cb
Foreign Language					
16.9999	Foreign Language			3	cb
Allied Health					
17.0210	Respiratory Therapy Technician	1	very good	7	very good
17.0310	Medical Technology			2	poor/cb
17.0101	Dental Assisting	3	good	6	very good
17.0102	Dental Hygiene			5	very good
17.0205	Emergency Medical Technician	3	good	3	good
17.0206	Paramedic	1	good	2	good
17.0208	Nuclear Medicine Technology			1	cb
17.0209	X-Ray Technology			1	very good
17.0209	Radiology Technology			3	good
17.0211	Surgical Technology	1	very good	2	good
17.0401	Alcoholism and Drug Therapy Counseling			1	fair
17.0406	Gerontology Care Technician			1	fair
17.0503	Medical Assistant			10	good/cb
17.0505	Medical Office Assistant	3	good	5	good
17.0506	Medical Records Technology			4	good
17.0506	Medical Records Transcriptist	2	good	3	very good
17.0512	Welding and Cutting Technology	3	fair	4	fair

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
17.0599	Health Technologies			2	cb
17.0807	Occupational Therapist			3	cb
17.0808	Occupational Therapy Asst			2	fair
17.0813	Physical Therapist			4	cb
17.0815	Physical Therapist Asst			1	very good
Health Sciences					
18.0199	Interpreting & Sign Language Studies	1	poor	2	fair
18.0199	Sign Language Interpretation			1	poor
18.0701	Dentistry			2	cb
18.0703	Medical Record Administration	1	fair	2	good
18.0999	Medical Laboratory Technician			2	very good
18.1001	Medicine			3	cb
18.1025	Radiography			2	good
18.1101	Nursing	8	very good	18	very good/cb
18.1401	Pharmacy	1	fair	2	cb
18.2401	Veterinary Medicine			2	cb
Home Economics					
19.0101	Home Economics			2	cb
Vocational Home Economics					
20.0102	Child Care Worker	1	fair	4	good
20.0102	Child Care and Development	1	poor	5	fair/cb
20.0201	Child Care-Special Education			2	cb
20.0202	Child Care Technology			1	cb
20.0202	Child Care Aide	2	poor	4	fair
20.0205	Teacher Aide	3	poor	3	fair
20.0301	Clothing Specialist-Fashion			1	fair
20.0403	Culinary Arts	1	good	3	excellent
20.0404	Dietetic Management and Technology	1	very good	1	excellent
20.0405	Food Service Technology	3	very good	3	excellent
20.0406	Culinary Arts Technician			1	very good
20.0406	Culinary Skills & Management	1	good	1	very good
20.0506	Fashion-Interior Design	1	good	2	good
Law					
22.0101	Law			4	cb
22.0103	Para-Legal Technology			2	fair

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
22.0103	Legal Assistant	2	fair	7	good
	Letters				
23.0101	English			4	cb
23.0801	Language			2	cb
23.1001	Speech/Debate/Forensics			1	cb
23.1101	Scientific and Technical Writing			1	cb
	Liberal/General Studies				
24.0101	Liberal Arts			9	fair/cb
	Library and Archival Sciences				
25.0101	Library Science			1	poor
	Life Sciences				
26.0101	Biological Sciences	1	poor	4	cb
26.0101	Liberal Arts Biology Science			4	cb
26.9999	Applied Science	1	fair		
	Mathematics				
27.0101	Mathematics	1	fair	5	cb
	Multi/Interdisciplinary Studies				
30.0401	Humanities			4	cb
	Parks and Recreation				
31.0201	Recreation & Youth Leadership			1	good
31.0201	Ski Area Management			1	good
31.0201	Ski Instruction			1	poor
	Leisure and Recreational Activities				
36.0108	Exercise Leadership	1	fair	1	fair

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
Philosophy and Religion					
38.0101	Philosophy			2	cb
38.9900	Religious Studies			1	fair
Theology					
39.0601	Theology			1	fair
Physical Sciences					
40.0101	Physical Science			2	cb
40.0101	Liberal Arts Physical Science			3	cb
40.0501	Chemistry	2	good	7	excellent
40.0601	Geology/Earth Science	1	poor	1	cb
40.0703	Earth Science	*	poor	3	cb
Science Technology					
41.9990	Science			5	good/cb
Psychology					
42.0101	Psychology			6	good/cb
Protective Services					
43.0102	Correctional Adminstration and Security	1	good	1	good
43.0102	Corrections and Security Administration			1	good
43.0102	Criminal Justice-Corrections	2	fair	3	very good
43.0105	Criminal Justice-Police Administration	3	fair	6	good
43.0107	Law Enforcement	2	fair	10	fair
43.0108	Legal Enforcement Administration	1	good	1	excellent
43.0109	Retail Security	1	fair	1	good
43.0109	Industrial Security	1	good	1	very good
43.0201	Fire Science Technology	1	fair	2	fair
43.0299	Fire Protection Technician			3	good
Public Administration					
44.0411	Public Administration			2	cb
44.0701	Human Services Technician	3	fair	5	good
44.0701	Social Work			6	fair/cb

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
44.0701	Social Work Aide	1	poor	2	poor/cb
44.0799	Youth Services			1	fair
Social Science					
45.0101	Social Science			7	fair/cb
45.0101	Liberal Arts Social Science			4	good/cb
45.0601	Economics			4	cb
45.0701	Geography			3	cb
45.0801	History			3	cb
45.1001	Political Science			4	cb
45.1101	Sociology			4	cb
Construction Trades					
46.0302	Electrical Trades Technology-Electronic	1	very good	5	very good
46.9999	Construction Residential	2	fair	3	fair
46.0401	Building Operations Management	1	fair	1	fair
Mechanics and Repairs					
47.0101	Electronic Service Tech.-Audio	1	very good	3	very good
47.0101	Electronic Service Tech.-Elect. Comm.	1	very good	3	very good
47.0101	Electronic Service Tech.-Television	1	very good	2	very good
47.0101	Machine Maintenance	2	fair	2	good
47.0103	Telecommunications Technician			1	very good
47.0104	Electronic Computer Microprocessor Tech	1	very good	3	excellent
47.0104	Computer Electronics	1	very good	4	very good
47.0105	Electrical Trades Technology-Industrial			2	good
47.0302	Diesel and Heavy Equipment Repair	3	fair	4	fair
47.0602	Aircraft Maint Technology	1	very good	2	excellent
47.0602	Aviation Mechanics Powerplant	1	good	1	good
47.0603	Auto Body Repair and Technology	4	good	3	very good
47.0604	Automotive Mechanics	8	good	9	good
47.0604	Automotive Power Technology			1	good
47.0604	Automotive Service Technology	6	fair	9	very good
47.0605	Diesel and Truck Mechanics	3	fair	3	good
47.0605	Diesel and Industrial Truck Tech	2	fair	3	very good
47.0699	Small Engines & Allied Equipment	2	fair	2	good
Precision Production					
48.0101	Design Engineering Technology			1	excellent

CIP Number	Academic Majors	Certificate n	Certificate Rating	Degree n	Degree Rating
48.0102	Arch. Drafting-Civil Construction				
48.0102	Architectural Drafting Tech	3	good	6	good
48.0105	Mechanical Drafting Tech	3	good	7	very good
48.0199	Industrial Drafting and Design Tech	2	poor	5	very good
48.0199	Industrial Draft Tech Tool			1	very good
48.0199	Tool and Die Drafter			3	very good
48.0203	Graphic & Commercial Art-Commercial Art			3	good
48.0203	Commercial Art/Graphics	1	fair	5	fair
48.0205	Typesetting & Copy Preparation	1	poor	1	poor
48.0503	Manufacturing Processes Technology			1	good
48.0503	Machine Shop	1	good	3	very good
48.0503	Tool and Die Making			2	very good
48.0503	Machine Tool Operations	4	good	4	very good
48.0503	Industrial Technology and Tool	1	very good	5	very good
48.0503	Industrial Machines Technology			1	excellent
48.0503	Numerical Control Technology	2	very good	3	excellent
48.0503	Machining Technology	1	very good	2	very good
48.0507	Mold Maker-Plastic	1	poor	1	poor
48.0508	Welding and Fabrication	3	fair	4	good
48.0508	Welding Technology & Industrial Fabricat	5	fair	8	good
48.0703	Millwright	1	poor	1	poor
48.0801	Physics			3	cb
	Transportation and Material Moving				
49.0100	Aviation Maintenance Tech			3	very good
49.0102	Aviation Flight Technology			1	fair
49.0203	Materials Management Technology	1	poor	1	poor
	Visual and Performing Arts				
50.0201	Art-Craft & Sculpture	2	poor	5	poor/cb
50.0301	Dance	1	poor	2	fair
50.0401	Art-Design			3	poor/cb
50.0402	Graphic Design Technician	1	fair	5	fair
50.0501	Drama	1	fair	2	fair/cb
50.0501	Theater			7	poor/cb
50.0701	Fine Arts and Art History			1	cb
50.0708	Art-Painting & Drawing	2	poor	5	poor/cb
50.0801	Technical Illustrator	1	fair	2	fair
50.0801	Graphic Arts Technology	1	fair	2	fair
50.0902	Music History & Literature			2	cb
50.0903	Musical Theater			2	cb
50.0904	Music Theory and Composition			2	cb

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